The Times and Register.

Vol. XXV. No. 17. PHILADELPHIA, OCTOBER 22, 1892. Whole No. 737.

Original Articles.

TREATMENT OF TYPHOID FEVER.

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IN compliance with your kind invitation in October 8 number of TIMES AND REGISTER I submit the following on typhoid fever. It is the Western treatment, if I may so term it. Quite a number of medical journals in the last four years have contained articles on the subject. While some of the articles are perhaps somewhat too sanguine, all, however, concur in the superiority of the treatment to all others that have been offered to the medical profession. I have tried and tested it for three years in quite a number of cases of typhoid fever, probably twenty to twenty five, and I can truly say that the results are most satisfactory. The treatment is based upon scientific principles, such as are now recognized by the advanced men in the medical profession. All intelligent physicians know that the fever is caused by the bacillus typhosus, generating a ptomaine typhotoxic, producing the aggregation of symptoms called typhoid fever. The treatment heretofore had been largely symptomatic, not based upon any scientific or pathological principle, but since the discovery of antiseptics a more rational and sensible treatment has come into vogue. Now our medical journals and medical teachers are proclaiming "intestinal antisepsis" as the basis or principle of all treatment. A number of antiseptics are recommended, which I will enumerate in the order of their true value: Salicylates of ammonia, soda and bismuth, sulpho-carbolate of zinc, sulphite of soda, carbolic acid, iodine, salol, spts. of cinnamon, etc., etc.

If it were possible to apply our antiseptics only to the diseased portion of the bowel, Peyers' glands, as we do to all external wounds and sores, we could soon

bring about a cure, but as most of our antiseptics are soluble (except salicylate of bismuth and salol) they are absorbed by the stomach and intestines, and fail to reach the exact locality of the lesion, consequently we have to be satisfied with an incomplete local antisepsis, but we will find that even this is the best, and that we can accomplish as much by soluble antiseptics as by insoluble ones.

With this introduction I beg leave to submit the following treatment to the consideration of the medical world, promising that it is not the result of a few months' observation, but the patient result of three years' trial in a number of cases, twenty-five. After giving the treatment I will speak of results and discuss remedies used. Upon seeing a case of typhoid fever, or a suspected one, the following is prescribed:

℞.—Ammoniæ salicylatis..... 3j.
Sod. salicylatis ..... 3ss.
Acetanilid (anti-febrine)..... gr. xxiv
M. et. ft.—Chart No. xii.
Sig. Give every three hours a powder dissolved in an ounce of hot water, with 6 to 10 drops of the spirits of cinnamon (U. S. D.). Add a little cold water to the above.

If the bowels are bound up give a Seidlitz powder, or a dose of castor oil and glycerine (āā) one tablespoonful, and repeated in four hours if necessary. Give after midnight for several succeeding nights 20 grains of quinine at one dose, with sufficient lemonade or toddy to dissolve it in the stomach. Quinine best given in capsules. Have the nurse to take the temperature and pulse every three hours, and keep a written record of them, as for instance: 9 A.M., temperature 102, pulse 78; 12 M., temperature 102⅔, pulse 78, and so on through the whole course of the disease.

The above is the general treatment. As for special treatment of symptoms the following plan is followed: For diarrhœa the following is used:

℞.—Bismuth salicylate..... 3j.
Sod. bicarb..... gr. xx.
Sod. sulphitis..... gr. xx.
Pulv. opii..... gr. v.
M. et. ft.—Chart vel. capsulæ x.
Sig. Give a powder or capsule every six hours.

For a red tongue let the patient drink freely of lemonade for two or three days, until the alkalinity of the blood is neutralized, or changed to an acid condition, which will be indicated by the tongue losing its red color and becoming pale. The bowels are to be kept open with castor oil and glycerine if they are costive. For tympanites give sulphite of soda, 10 grains, three to four times a day in drinking water. For sordes wash the mouth with sol. peroxide hydrogen and listerine, or carbolic acid in glass of water, 10 to 15 drops. For insomnia ⅛ to ¼ grain morphine.

Dietetic treatment consists in giving a glass of milk every four to six hours, with 10 grains of lactopeptine, alternated with other liquid food, such as soups, bovinine, tea and coffee, etc.

I promised to speak of remedies and results after giving treatment. As to the salicylate of ammonia, the experience of a number of medical men, as I gather from the medical journals, is uniform that it is the prince of antiseptics in typhoid fever, destroying all bacilli or microbes in the alimentary canal and completely disinfecting the bowel. The salicylate of soda, in addition to its antiseptic properties, is diaphoretic, and with acetanelide will eliminate through the skin the toxic products of the bacillus typhosus. The spirits of cinnamon is said by French physicians to destroy the typhoid bacillus; it is gently stomachic. The salicylate of bismuth is the ideal intestinal antiseptic, and combined with the bicarb. soda (to neutralize the free salicylic acid in the bismuth) and with the sulphite of soda, will so completely disinfect the stools of typhoid fever that not an odor can be detected by the most sensitive nose. Besides being insoluble, it will be carried on through the bowel, and as it passes over the ulcerated glands of Peyer, it will there exert its germicide properties on the bacillus.

Now as to results. After three years of trial I am willing to affirm that typhoid fever can be brought to an end, and convalescence established at the end of fifteen to seventeen days if the treatment is commenced at the beginning, and it is best to put all suspicious cases on the above treatment when first seen.

Among other results of the above treatment I have uniformly observed these: No tympanites, no delirium, no subsultus tendinum, no picking at bedclothes, no diarrhœa, no dry tongue, no sordes; but, on the other hand, a feeling of comfort, calm refreshing sleep, a fair appetite, warm moist skin, very little trouble to the nurse, whose usual answer to the question "How is our patient getting along?" is

"the best kind." I give plenty of good cistern water to drink with pure ice if desired. I give above my experience with the Western treatment of typhoid fever. There is not a word or statement I would retract or modify.

THE THERAPEUTIC APPLICATION OF SALOPHEN.[1]

By Dr. JOSEF. FROHLICH.

I SELECTED as the subjects for my first experiments eleven cases of acute and six cases of chronic articular rheumatism, choosing chiefly those which were characterized by high fever, severe involvement of numerous joints, and especially by extensive intra-articular effusions, or those which were attended with cardiac complications. In the chronic cases I paid especial attention to those which previously had been treated with other preparations of salicylic acid, in order to compare the efficacy of the latter with that of salophen. In acute as well as in chronic rheumatism affections I commenced usually with a daily dose 6.0 gm. (90 grains) which was increased to 7.0 gm. (105 grains) in a few cases, and after subsidence of the acute symptoms reduced the dose to 4.0 gm. (60 grains) per die, which was gradually continued until a recurrence was no longer to be feared.

In a second series of experiments, comprising seven cases, I tested the antipyretic effect of salophen, and employed it for this purpose in various febrile conditions, especially in phthisis attended with fever, measles, erysipelas, and intestinal affections of a febrile character. I began with a dose of 3.0 gm. (45 grains) which was increased to 6.0 (90 grains) per day, *i.e.*, by addition of 1.0 gm. (15 grains) daily to the dose, the remedy being administered every two hours, or the entire daily dose being given in the course of three to four hours in order that the effect of salophen might be determined during the rest of the day.

A third series of experiments was undertaken with the view of investigating the disinfectant and antiseptic properties of this new salicylic acid preparation. The facts that salophen in alkaline solution gives off an abundance of salicylic acid, and that the latter can be detected readily and in large quantity in the urine of all patients to whom salophen had been administered by means of the iron chloride reaction, induced me to employ the new remedy in three cases of cystitis (*i. e.*, cystopyelitis) partly internally and partly in solution for irrigating the bladder. For the latter purpose I prepared a solution of 1.0 gm. (15 grains) salophen to 10.0 gm. (2½ drams) of alcohol, which was diluted with about 500 c.cm. (say 16 ozs.) of water; I injected this after the bladder had been washed out with water. Finally I employed salophen as a dusting powder, in a few cases of profusely secreting wounds or ulcers.

The first experiments, as already mentioned, comprised cases of acute and chronic articular rheumatism, the histories of which I will now proceed to give in brief.

Case I.—Sch. A., a vigorous and well-nourished servant girl, aged eighteen, had suffered since March 16 from pains in both knees, so that she was scarcely able to walk or stand.

On admission, March 18, she had a temperature of 57.8° C. (100.0° F.); both knees were swollen, the capsules of the joints puffy, balottement of the patilla on left side; active and passive movements of the knee joints or movements of the patilla extremely painful. Treatment: hot mush poultices, salophen 4.0 gm. (60 grains).

March 19. Temperature normal, pain less severe.

March 21. Pains only present in left knee, swelling and balottement have subsided.

March 22. Complete disappearance of pains. Salophen 3.0 gm. (45 grains) continued until March 29, cure; duration of treatment five days.

Case II.—Z. M., a weak and ill-nourished servant maid aged twenty-seven, was attacked March 25, by fever and violent pains in the joints.

When admitted, March 26, there were present aside from insufficiency of the mitral valve, tenderness and slight swelling of right knee, left elbow joint and left shoulder joint, pain and marked swelling with effusion into the right elbow joint, which was markedly distended and gave distinct fluctuation, the skin over it being red and hot. Temperature 37.7°–38° C.

[1] From the Fourth Medical Division of the Royal Imperial General Hospital of Vienna. Translated from the *Wiener Medizische Wochenschrift*, Nos. 25, 26, 27, 28, 1892.

(100°–100.4° F.). Poultices, salophen 6.0 gm. (90 grains).

March 30. Fever gone, pains reduced.

April 6. Pain and effusion only present in right elbow joint. Salophen 7.0 gm. (105 grains) administered, which was well borne, considerable free salicylic acid being detected in the urine.

April 15. Under the use of salophen 7.0 gm. (105 grains) and hot arm baths the exudation in right elbow joint has been partially absorbed. Pains have completely disappeared.

April 20. Salophen discontinued. The still existing exudation and anchylosis treated by absorbefacients and massage.

May 7. Patient discharged improved; movements in right elbow joint impaired.

CASE III.—S. V., servant maid, moderately well nourished and strong, aged twenty-two, was attacked April 20, by fever and pains in both knees.

On admission, April 25, she was found markedly anæmic; temperature 37.4° C. (99.3° F.); both knee joints, especially the right, immensely swollen, the skin over them red and hot and motion extremely painful; tenderness in the ankle and elbow joints which were not swollen. Salophen 6.0 gm. (90 grains).

April 26. Temperature 38.2°–38.6° C. (100.7°–101.4° F.); pain and swelling of the knees and ankles increasing.

During the period from April 29 to May 1, salophen discontinued on account of acute gastric catarrh; the fever has disappeared; the pains and swelling persist.

May 2. Salophen 6.0 gm. (90 grains), condition unchanged. On May 5, pains in ankle again increase; salophen 7.0 gm. (105 grains).

May 7. Pain in both knees gone; in left ankle joint slight tenderness on passive motion.

May 9. Discharged cured. Duration of treatment fourteen days.

CASE IV.—S. E., a vigorous young man, aged twenty, was seized April 27, with pains in both hip and ankle joints.

On admission, April 30, both wrist and knee joints were swollen, reddened, fluctuating (balottement) extremely painful on motion; the finger and ankle joints and joint of the great toe very sensitive although not swollen. Commencing endocarditis. Temperature 38.8°–39° C. (101.7°–102.2° F.). Salophen 6.0 gm. (90 grains).

May 1. Temperature 38°–39° C. (100 4° –102.2° F.); urine free from albumen, but containing abundant free salicylic acid.

May 2. Patient has no fever, pains less severe.

May 3. No fever; all joints free from pain even on forced, active and passive motion; swelling reduced. At apex of heart a slight systolic murmur still audible.

May 7. Patient goes about without difficulty and is discharged cured. Duration of treatment eight days.

CASE V.—P. J., sturdy laborer, complains since April 8 of pains in almost all the large joints.

On admission, April 27, both knees, hip and shoulder joints and the right wrist joint were reddened and swollen, all movements painful. Temperature 38.2° C. (100.8° F.). Salophen 6.0 gm. (90 grains).

April 29 to May 1. Increase of temperature in the afternoon to 37.8° C. (100.0° F.) Pains in knees slighter; other joints unchanged.

May 1. Apyrexia.

May 3. Pains in shoulders slighter; swelling of knee has disappeared. Systolic murmur at apex of heart. Urine normal, containing an abundance of free salicylic acid.

May 6. Patient completely free from pain, and is discharged cured. Duration of treatment nine days. Although after administration for two days of 4.0 gm. (60 grains) of salicylate soda per die the patient complained of profuse sweating and debility, he experienced no disturbances of any kind from administration of 7.0 gm. (105 grains) of salophen for six days.

CASE VI.—K. St., a pale moderately strong girl, aged eighteen, had suffered five weeks before from an acute arthritis, and complained since four days of violent pains in both ankle joints.

April 28. Over the malleoli of both ankle joints redness and swelling, the joints very tender on movements; insufficiency of the mitral valve. Temperature 37° C. (98.6° F.). Salophen 6.0 gm. (90 grains).

May 1. Continued apyrexia; acute phenomena have disappeared; slight tenderness in both ankle joints on passive motion.

May 3. Patient goes about without difficulty, and is discharged cured May 9. Duration of treatment eleven days.

CASE VII.—Sch. H., moderately strong workman, aged twenty four, had suffered since May 3 from articular rheumatism, complicated with pericarditis. This had already disappeared, when, on May 9, suffered a recurrence, with swelling and tenderness of the right ankle joint, so that the patient experienced violent pains even when resting. Salophen 5.0 gm. (75 grains).

May 10. Temperature 36.8°–37.6° C. (98 2°–99.7° F.). Salophen 6.0 gm. (90 grains).

May 11. The affected joint free from pain, even on forced movements.

May 12. Discharged cured. Duration of cure four days.

CASE VIII.—K. C., moderately strong, well nourished servant maid, aged twenty-six, who had always enjoyed good health, was attacked on May 2 with pains in both knees. During the following days the other joints of the upper and lower extremities were gradually attacked, excepting the joints of the fingers and toes, so that patient was compelled to give up work. At times febrile attacks of short duration occurred.

On admission, May 10, all the above named joints are sensitive to pressure, and extremely painful when active and passive motions are made. No swelling present at any place. Temperature 37.0° C. (98.6° F.). Salophen 5.0 gm. (75 grains).

May 11. Fever absent; pains in joints less severe. Salophen 6.0 gm. (90 grains).

May 13. Slight tenderness in the knee and ankle joints; the other joints unaffected.

May 15. Slight tenderness in ankle joints. Patient walks about without any trouble. Discharged cured. Duration of treatment six days.

CASE IX.—B. A., a strong well-nourished coachman, aged thirty-two, of good previous health, was attacked March 15 by violent pains and swelling of both knee and ankle joints. During the following days all the other joints of the lower, then the upper extremity, finally those of the spine, became painful and swollen, so that patient was unable to execute the slightest movement.

On admission, March 20, the robust man presented a lamentable picture. He lay stiff in bed, with anxious countenance, and cried out loudly when one of the swollen joints was lightly touched. All the joints of the upper and lower extremity were swollen, the skin over them hot and red; all active or passive motion attended with violent pain. The area of cardiac dullness somewhat enlarged, the systolic sound dull over all the ostia. The second pulmonary sound accentuated. Temperature 38°–39.5° C. (100.4° –103.1° F.). Salophen 4.0 gm. (60 grains).

March 21. *Status io.* Temperature 38.1°–38.5° C. (100.5°–101.3° F.). Salophen 5.0 gm. (75 grains).

March 22. Pains in the lower extremities less severe. Temperature 37.6°–38.4° C. (99.7°–101.1° F.). Cardiac sound clear. Salophen 6.0 gm. (90 grains).

March 23. Patient since three days completely free from fever and pain. Salophen discontinued. Duration of treatment six days.

On April 4 the patient again complains of pains in the spine, in the shoulders and left knee. Temperature 39.4° C. (103.0° F.). Salophen 3.0 gm. (45 grains).

April 6. Pains relieved. Salophen 4.0 gm. (60 grains).

April 7. Pains in joints entirely absent. Occasional tinnitus aurium lasting for a short time. Salophen discontinued. Shortly after recovery from the rheumatism, patient acquired a pleurisy on the right side. Salophen, which was employed as an antipyretic, failed to exert any effect.

CASE X.—N. K., aged eighteen, good previous health, was attacked May 7 with violent pains in the sacral region, which was followed by swelling of both knee and ankle joint.

On admission, May 11, the patient, a vigorous, moderately well-nourished man, had a temperature of 38.6°–39.2° C. (101.5°–102.5° F.); he was unable to move about, even slightly, in bed on account of violent pains in the back and legs, and cries loudly when the limbs are touched. Knee and ankle joints immensely swollen, red and hot. On passive motion patient experiences pain in shoulders and cervical vertebræ. Increased area of cardiac dullness, systolic sounds muffled accompanied with a souffle. Second sound of the heart accentuated over the aorta and pulmonary artery (pericarditis?). Salophen 6.0 gm. (90 grains).

May 13. Temperature 37.3°–37.8° C. (99.1°–100.0° F.). In the affected joints pains only present on forced passive movements. Swelling of the knee and ankle

joints unchanged. Cardiac murmur has disappeared. Area of dullness normal. Salophen 6.0 gm. (90 grains).

May 14. Patient free from pain and fever. Exudation in left knee joint unchanged. Salophen 6.0 gm. (90 grains).

May 16. Patient goes about without difficulty. Exudation in left knee joint diminished. Salophen 4.0 gm. (60 grains).

May 18. Salophen discontinued. Massage of left knee joint. Duration of treatment, eight days.

CASE XI. J. J., aged fifteen, a weak anæmic servant girl, gave a history of having worked repeatedly at night fourteen days before when insufficiently clad. Several days later she experienced pains in the knees and calves of the legs, which, on April 27, became so violent that she was compelled to seek the bed.

On admission, May 1, a tuberculous infiltration of the upper lobe of the right lung was found. On movements of the knee joints or pressure upon the calves, pain was experienced; even slight movements of the legs can only be carried out with difficulty, being attended with severe pain. Temperature, 38.6° to 39°. C (101.4° to 102.2°.F). Salophen, 6.0 gm. (90 grains.

May 6. Pains in knees and calves completely gone. Salophen, 6.0 gm. (90 grains). During these five days patient had continued fever on account of extension of the pulmonary process; the fever was about 38° C (100 4° F.), and showed exacerbations in the evening. The quantity of 6.0 gm. (90 grains) of salophen administered daily exerted no effect upon the fever.

May 6. Salophen discontinued.

To these thoroughly described cases of acute articular rheumatism, I will add in brief six cases of chronic rheumatism treated with salophen:

CASE I.—E. K., aged twenty-six, a vigorous, well-nourished servant girl, had suffered from frequent attacks of articular rheumatism since 1886, and in the course of these had acquired a mitral insufficiency. On May 28, she was attacked by pains in the joints of the fingers of the left hand, and in the left knee. When admitted, April 11, these joints were still painful; the knee was swollen, and a grating sensation felt in it. Temperature normal. Up to April 27 patient received daily 6.0 gm. (90 grains) of salophen, which was well borne. On April 17 the pain and swelling of the affected joints had disappeared, and patient was discharged cured April 19. Duration of treatment eight days.

CASE II.—L. A., a weak man, suffering from chronic bronchitis, had four years previously passed through a severe attack of articular rheumatism, and since then had suffered constantly from rheumatic pains in the right knee. April 15 the left wrist and right knee joint began to swell, and fluctuation was noted; movements provoked violent pains. Temperature normal. Salophen 4.0 gm. (60 grains). April 15-17, salophen 6.0 gm. (90 grains). Pains in the still swollen joints disappeared so that movements, as far as they were possible on account of the profuse articular exudation, could be executed without difficulty. Absorption of the exudation could not be brought about, although 6.0 m. (90 grains) of salophen were administered for one week.

CASE III.—A. M. had suffered for several years from frequent attacks of shifting pains in the shoulder, hip, and knee joints, which had been treated by salicylate of soda, local application of ichthyol and massage with only temporary success. Patient received during eight days 6.0 gm. (90 grains) of salophen. The pain in the joints was relieved, the swelling, however, remained the same. Patient could walk about with difficulty with the aid of a cane, while previously he had been confined to bed. After the first administration of salophen patient complained of a feeling of weight and constriction of the head and occasional vertigo. More marked disturbances, however, did not appear, and the existing disorders disappeared spontaneously after three days' administration of the remedy.

CASE IV.—A. M., aged twenty-four, an agent, had suffered for many years from painful swelling of both knee and ankle joints. The patient was given 3.0, 4.0, 6.0 gm. (45, 60, 90 grains) of salophen per die for three days, after which the pains disappeared during rest in bed, although they immediately reappeared when he attempted to walk. Although the remedy was continued for eight days, further improvement was not remarked.

CASE V.—R. J., aged nineteen, an apprentice, had been under treatment since February, 1891, for severe articular rheumatism combined with acute endocarditis. Notwithstanding continued administra-

tion of salicylate of soda until the middle of March, pain and swelling of the right shoulder joint persisted. Temperature 36.7° C. (98°. F.) From March 14 to 19, 4.0 gm. (60 grains) of salophen was administered daily, but without any noteworthy result. The pains in the shoul ders became more violent, and spread to the arms. Salophen was then discontinued and massage resorted to, under which the condition improved.

CASE VI.—S. K., aged forty-six, a servant, had suffered from an attack of severe articular rheumatism in 1889. Since then was troubled with violent pains, especially in the knees, at every change of the weather, which, during the last few weeks, were associated with persistent pains.

May 10. Salophen 6.0 gm. (90 grains). Temperature, normal; the above-named joints tender but not swollen.

May 12. Pains unchanged. During the afternoon profuse sweating for two hours.

May 14. No change. In the afternoon every day a disagreeable attack of sweating, after which patient felt greatly debilitated.

May 16. Salophen proves inefficient and is discontinued.

If we now study the effects of salophen in the above-described cases of acute articular rheumatism, we find that the remedy did not disappoint us in any of the cases. In almost every instance the pains had subsided in three or four days, even in the joints most severely affected, and six to eight days later the acute swelling had disappeared. Effusions into the joints of slight extent were readily and completely absorbed, while large exudations remained either unaffected by the salophen or absorption was brought about only with the aid of absorbifacients and massage.

CASE IX was especially instructive. Thanks to the prompt action of salophen, the first attack was terminated in six days. Eight days later, however, an equally severe recurrence took place, which subsided in four days under much smaller doses of salophen, but was followed by a pleurisy. Although the fever accompanying the rheumatism had disappeared after three days' administration of salophen, the fever of pleurisy remained entirely unaffected.

This teaches us, first, that Salophen is as incapable as the other salicylic preparations of preventing recurrences after recovery from acute rheumatism, and, second, that salophen promptly acts upon the fever of rheumatism, but has no influence upon febrile conditions of different origin, as is shown by Case XI and other cases referred to later.

It was further observed in Cases IV and V that, notwithstanding the administration of sufficient quantities of salophen, an acute endocarditis developed, while Case X, at the time of admission, prevented extensive and well-marked cardiac dullness and muffled heart sounds, accompanied with murmurs, so as to lead us to suspect pericarditis, which symptoms had disappeared completely in the course of three days. Whether this was attributable to accident or to the effect of salophen, could not of course be decided.

A less favorable result was obtained from the salophen treatment in six cases of chronic rheumatism, of which only the first could be regarded as cured. In the second and third case the improvement consisted only in removal of the pains in the joints, while the exudations and consequent ankylosis of the affected joints was entirely uninfluenced, notwithstanding that considerable doses of the remedy were exhibited. In Cases IV, V and VI the effect was absolutely nil.

The second series of experiments undertaken for the purpose of testing the antipyretic effect of salophen, gave a doubtful result. An action upon the temperature was noted only in a case of pyrexial phthisis, the course of the fever being described further on. Every one who knows how variable are the febrile conditions in pulmonary tuberculosis, and how much the fever curves depend upon the progress or arrest of the pulmonary trouble, will appreciate that little stress is to be placed upon such remissions which are apparently produced by the antipyretic.

In the case of a weak and anæmic patient, who suffered from advanced tuberculosis of the right lung, the following two days occurred during the course of the fever:

Date.	Salophen, Hour of Administration.	Hour of Taking Temperature.	Temperature.
March 16.	4.0 gm. [60 grains.] 8 o'clock.	7 o'clock.	38.3°C. [101.0°F.]
	11 "	10 "	37.5° " [99.5° "]
	1 "	12 "	37.2° " [99.0° "]
	3 "	2 "	37.6° " [99.6° "]
		4 "	37.8° " [100.0° "]
		6 "	39.3° " [102.7° "]

Date.	Salophen, Hour of Administration.	Hour of Taking Temperature.	Temperature.
March 17.	4.0 gm. [60 grains.] 8 o'clock.	7 o'clock.	38.5°C. [101.3°F.]
	9 "	10 "	37.9° " [100.2° "]
	10 "	12 "	38.0° " [100.4° "]
	11 "	2 "	37.9° " [100.2° "]
		4 "	38.0° " [100.4° "]
		6 "	38.5° " [101.3° "]

From the history of these two days of the disease the conclusion may be readily drawn, that on the first day the apyrexia of seven hours duration was certainly not attributable to salophen, since when administered on the following day in equal doses and at shorter intervals, it was unable to reduce the temperature to normal, even for an hour.

Date.	Salophen, Hour of Administration.	Hour of Taking Temperature.	Temperature.
April 3.	3.0 gm. [45 grains.] 10 o'clock.	10 o'clock.	39.2°C. [102.5°F.]
	3 "	12 "	39.4° " [103.0° "]
	6 "	2 "	39.8° " [103.6° "]
		4 "	39.5° " [103.1° "]
		7 "	38.2° " [100.7° "]

Date.	Salophen, Hour of Administration.	Hour of Taking Temperature.	Temperature.
April 4.	5.0 gm. [75 grains.] 8 o'clock.	8 o'clock.	38.5°C. [101.3°F.]
	10 "	10 "	38.8° " [101.8° "]
	2 "	12 "	37.7° " [99.8° "]
	4 "	3 "	37.1° " [98.8° "]
	6 "	5 "	38.0° " [100.4° "]
		7 "	38.4° " [101.1° "]

In a case of chronic pleuro-pneumonia complicated with erysipelas, the same doubtful result was observed.

Date.	Salophen, Hour of Administration.	Hour of Taking Temperature.	Temperature.
March 18.	5.0 gm. [75 grains.] 8 o'clock.	8 o'clock.	38.3°C. [101.0°F.]
	9 "	10 "	37.5° " [99.5° "]
	10 "	12 "	36.5° " [97.7° "]
	11 "	2 "	36.0° " [96.8° "]
	12 "	4 "	36.5° " [97.7° "]
		6 "	36.3° " [97.4° "]
		8 "	36.7° " [98.0° "]

Date.	Salophen, Hour of Administration.	Hour of Taking Temperature.	Temperature.
March 19.	5.0 gm. [75 grains.] 8 o'clock.	8 o'clock.	38.3°C. [101.0°F.]
	9 "	10 "	38.3° " [101.0° "]
	10 "	12 "	38.2° " [100.8° "]
	11 "	2 "	38.5° " [101.3° "]
	12 "	4 "	37.7° " [99.9° "]
		6 "	37.7° " [99.9° "]
		8 "	37.5° " [99.5° "]

The same occurred in a case of erysipelas, and, as already described, in a case of pleuritis sicca. Whenever a remission took place which could not be attributed to a change in the disease, as, for example, in the case of pleuro-pneumonia complicated with erysipelas, it lasted at the most twenty-four hours, and gave way to a febrile exacerbation on the following day, in spite of continued administration of salophen. If the reduction of temperature occurred during the day it lasted no more than three or four hours, even when the remedy was given at short intervals.

Salophen was also employed in three cases of cystitis, partly internally and partly in fluids for irrigating the bladder.

The first case was a servant maid, aged twenty-two, who had suffered for fourteen days from blennorrhœa of the vagina and urethra. The urine was alkaline and turbid, and deposited a sediment which, besides phosphates, contained a large number of pus corpuscles, but no renal casts. In short, the patient presented the typical symptoms of acute cystitis. Salophen 3.0 gm. (45 grains) was administed daily, and the bladder irrigated in the manner already described. As early as two days the pains in urination had become less severe, and after three days more the urine became clearer, and nine days after admission the urine no longer contained pus, so that three days later the patient could be discharged cured.

A second patient had suffered six months from vaginitis and urethritis. The urine deposited a thick sediment of pus, renal and vesical epithelium, had a strong ammoniacal odor and alkaline reaction. Salophen was employed in the same manner as in the first case, but as not the slightest change occurred in the urine other measures were resorted to.

In the case of a paralyetic patient, suffering from paralysis of the bladder and a moderate degree of cystitis, resulting from prolonged use of the catheter, salophen was administered internally for eight days in doses of 6.0 gm. (90 grains) per die.

The pus in the urine, however, did not diminish, although addition of iron chloride in the urine assumed a deep violet color, indicating abundant presence of salicylic acid.

In the following cases salophen was used as a dusting powder, without application of other antiseptics: Suppurating mucous crypt on foot, abscess of the forearm, incised panaritium, and ulcerating fungus pedis. In the first case an abundant formation of granulations occurred, with only slight secretion of pus, and cicatrization was complete in eight days. In all the other cases vigorous granulations developed, but in combination with profuse suppuration, so that cicatrization took place very slowly, and iodoform had finally to be resorted to.

It is noteworthy that under the salophen treatment after effects were observed in only three cases, which, however, never became so marked as to necessitate discontinuance of the remedy. In a case of advanced phthisis in a greatly debilitated patient, and in a case of chronic rheumatism, there appeared regularly, after administration of the salophen in the afternoon, a profuse sweating, combined with exhaustion, which, however, lasted scarcely two hours, and was followed by no other subjective disturbances. Another patient suffering from chronic rheumatism complained after the first dose of salophen of a feeling of heaviness in the head, dizziness and tinnitus, which, however, disappeared spontaneously, notwithstanding uninterrupted use of the remedy. As already remarked at the beginning, these symptoms are due to too rapid decomposition or faulty excretion of the salicylic acid, for the second constituent of salophen, acetyl paramidophenol, has been found an entirely innocuous in experiments on animals.

It should also be mentioned that salophen in large doses was well borne for a long period by a patient, who, after two days administration of salicylate of sodium (4.0 gm.; 60 grains) per die, experienced exhaustion and profuse sweats (Case V).

If, in view of our observations, we would give our decision as to the utility of this new salicylic preparation, the following conclusions may be formulated:

Salophen has shown itself a pompt and rapidly acting remedy against acute articular rheumatism. It is to be placed in the same category with sodium salicylate and salol as regards efficiency, but it is not hygroscopic, and may, therefore, be preserved in any form; second, it is tasteless in contrast to the disagreeable taste of sodium salicylate and salol; third, and this is its chief advantage, it may be administered, even in large doses for a long time, without the disagreeable after-effects of other salicylic acid preparations, such as loss of appetite, nausea, vomiting, vertigo, tennitus aurium and even collapse, for the reason that salophen is not decomposed until it reaches the intestine, and, therefore, cannot have an action upon the stomach. As a matter of fact, we never observed among the 30 cases observed by us disturbances of the functions of the stomach, and only in three instances transient cerebral symptoms.

The action of the remedy upon chronic articular rheumatism was not constant in the 6 cases observed; while in the first case it had a good effect, it proved utterly unreliable in three other cases. At any rate, it would be worth while to test salophen in chronic rheumatism, just as it is customary to make trials of the other salicylic acid preparations in these cases. Salophen will at least rapidly relieve the pain in the joints in most cases, while no great hope need be entertained as regards absorption of large exudations.

As an antipyretic it has proved inefficient in any dose or manner of administration.

The attempts to utilize salophen practically as an antiseptic, in consideration of its large quantity of salicylic acid, cannot be regarded as decisive, since I am unacquainted with the action of salophen upon pathogenic and putrifactive bacteria. It would be a grateful task to institute experiments in this direction upon more suitable material than at my disposal, and with the aid of the recent auxiliaries of bacteriology.

In conclusion, I would express my thanks to Dr. Scholz for referring to me suitable cases.

THE sanitary condition of wood pavements as a cause of cholera, through the dust arising from them, is now in question. It may afford a possible nidus for the germ. Still, it is consoling to know that most of the street refuse finds its way into the sewers.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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THE TIMES AND REGISTER,

FORMED BY UNITING THE

PHILADELPHIA MEDICAL TIMES,
THE MEDICAL REGISTER,
THE POLYCLINIC,
THE AMERICAN MEDICAL DIGEST,

Published by the MEDICAL PRESS CO., Limited.
Address all communications to
1725 Arch Street, Philadelphia.

PHILADELPHIA, October 22, 1892.

CITY DRAINAGE AND WATER SUPPLY.

CHICAGO has commenced the construction of works to divert her sewage from the lake by a new route. A branch of the Chicago river is to be connected with the Illinois and Michigan canal, and the current turned into the Des Plaines river at Joliet, forty miles from Chicago. All these channels are to be enlarged to create a water way two hundred feet wide and eighteen feet deep, with a minimum flow of three miles an hour. This will dilute the sewage to a harmless state, and on this condition all opposition along the route has been withdrawn. The canal may be utilized for commercial purposes, and be considerably larger than the dimensions given. This channel is calculated to be equal to the needs of a city of 3,000,000 inhabitants. It appears to be taken for granted that Lake Michigan will supply all the water required. The health, beauty and commercial interests of Chicago will alike be benefited by this plan, and we are glad to know that the work has been actually begun; and will be still more pleased when we can record its successful completion.

Perhaps it will stir up Philadelphia on the subject of her water supply. The water of the Schuylkill is doubtless better than that of the Elbe, or than that supplied to most large cities; but it is not good enough if better can be secured. The Schuylkill drains a rich country, thickly peopled, its banks lined with rapidly growing towns. It is certain that the quality of the water will become worse, with the certain increase in the sources of contamination. It is then only a question of time, and most people think the time has come, when we will be compelled to abandon this river and obtain our water from the only other source available, the Delaware river above Trenton. Here we have an abundant supply, from a river whose drainage basin is sparsely populated, and has no resources that will be likely to attract a larger population at any future period. Such sources of contamination as now exist could be removed by a small expenditure, and the acquisition of such property as would be necessary to maintain the purity of the water, would not be costly in a region where real estate has but little value.

In addition to the benefits conferred upon the public, the Delaware aqueduct would afford relief to a number of Philadelphia manufacturers. Strung along the Schuylkill from Riverside to Flat Rock Dam is an almost unbroken line of factories; paper mills, dye houses, plush, woolen and cotton mills. These factories give employment to thousands of our citizens, and their operations form no inconsiderable proportion of the city's industries. Many of these were located on the river bank before the present laws relative to water pollution went into effect. The present regulations, necessary as they undoubtedly are to the city at large, have put these firms to very heavy expense, in providing for the discharge of their waste products by other channels than the river. In many cases pumps have had to be provided and employés paid to operate them. This puts a burden upon these enterprises

that must handicap them to some extent in the race with their competitors who have no such drawbacks.

Over and over again, times without number, it has been proved that good hygiene is one of the soundest investments that can be made. It pays the citizen to put his premises in good hygienic condition. It pays the city that provides the best drainage and the best water, as well as the best schools and the finest public buildings; for all these things attract population and trade. We trust that the question of a better supply of water will soon be brought prominently forward, and that this may be done in a way that will not warrant the cry of jobbery in connection wlth the proposed enterprise.

Annotation.

SMOKE FOR TUBERCULAR PHTHISIS.

DR. W. C. ALBERTSON (*Med. Record*) has the honor of introducing a new method in the treatment of pulmonary tuberculosis. He speaks of the antiseptic and penetrating qualities of smoke; claims that it does no harm to the most delicate mucous membrane, and recommends it as an efficient agent in bacillar phthisis. He takes beechwood sawdust, mixes it with some harmless, quick-burning substance (tobacco?), and directs his patients to smoke it in an ordinary clay pipe. The treatment is continued from two to six months. Improvement is manifest after two or three weeks. At first the smoking causes cough, with increase of power to eject sputa. Both cough and expectoration then decrease until they cease. The weight increases. The temperature soon falls, but the pulse remains rapid to the last. At first the smoking is continued for but a few minutes, but the time is increased to forty minutes, and the smoking repeated two or three times a day. Eucalyptol and other drugs could be used on the sawdust. The idea might further be utilized in the treatment of diphtheria.

Letters to the Editor.

PLETHORA AND PRURITUS.

THERE is a storekeeper here who has suffered from itching, often most trying, especially on going to bed, for some years. It is situated about two inches below umbilicus, and often encroaches on scrotum. The marks are not very distinct, frequently, as is usual, showing nail scratches. After employing the physicians here, three or four months ago, he came to me. I gave him a slight temporary relief, not appreciable. The man is strictly moral; married; aged thirty-six; of phlethoric habit and build. I first advised removing the hair, and used ordinary local applications, with an alterative, but he says "nix gut."

W. J. NOLAN, M.D.

EMMETSBURG, IOWA.

[Give him colchicine and sodium salicylate internally, with tincture of benzoine locally. Put him on low diet, little meat, no coffee, plenty of fruit and cold water.

W. F. W.]

RHUMATIC FEVER.

I HAVE tried various remedies and plans of treatment, among them salol, salicine, the coal tar derivatives, salicylic acid, and the salicylate of soda. The latter remedy has proven more satisfactory in my hands than any of the other. A formula which gives very good satisfaction is as follows:

℞.—Sodii salicylatis..... gr. viij.
Potassii acetatis..... gr. v.
Vini colchici..... gtt. iij.
M.—Sig. Take every two hours till improvement begins, then not so often.

I sometimes combined salicylate of soda and antikamnia with very satisfactory results. Locally I like the following, both in the acute and subacute form:

℞.—Sodii salicylatis..... ʒj.
Tinct. opii..... ʒij.
Aquæ..... ʒij.
M.—Sig. Apply locally with palm of hand, rubbing in thoroughly.

J. BRYANT, M.D.

WEST POINT, ILL.

RHEUMATOID ARTHRITIS.

TO write an account of a favorable result in the treatment of a case of the above trouble of years standing, may, in the minds of some practioners, be accepted with a "grain of salt" as to diagnosis or permanency of effects.

A gentleman, farmer, aged fifty-three years, of full habit, applied to me in July of last year for relief from a painful condition in both feet. More especially in the metatarso-phalangeal joints. Parts were decidedly swollen, integument shiny, reddened and very tender; at intervals of a few days those conditions would, to a degree, subside but soon return again; gradually became more severe in character until he could not wear shoes he formerly wore, and walking became intensely suffering, of which he could do but little.

After the failure of several other physicians who were unanimous as regards diagnosis of rheumatoid arthritis, I began what I feared an inglorious task, with the promise to aid him if I could.

He also experienced dull, almost constant pain, in the lumbar regions, which he surmised "Bright's." I began with alkaline remedies to neutralize the blood, which showed marked acid reaction in the urine, followed with tablet triturates of arsenious acid, gr. $\frac{1}{30}$ gradually increasing to gr. $\frac{1}{10}$ of same, with an occasional application of galvanism, and stimulation of the liver mildly, at frequent intervals with eunoymin pill. For several weeks also, I gave him Wampole's preparation of cod-liver oil, as an excellent reconstructive tonic.

Externally I had the parts painted daily with tr. iodine.

In diet I requested him to avoid the use of beef, mutton, pork, and sugar, and drink no alcoholics. If we accept the theory that the presence of uric acid in excess from suboxidation of nitrogenous viands and mal-assimulation is due to the train of symptoms constituting rheumatism, it needs little argument to establish the axiom that to abolish as far as possible from a highly nitrogenous diet is desirable, as the first step in the right direction to minimize a tendency to failure to the point of formation of urea in the blood.

After about three months' treatment according to the above plan, the gentleman had gradually improved to the degree of almost entire comfort, walking with ease, wearing his former shoes, and following his former vocation, and passed from my professional notice. A short time ago I wrote Mr. S., asking for a general report of his condition as regards to permanence of changes made, when, on a following Sabbath, he reported in person, meeting me with a hearty greeting that expressed all I learned afterward, that he had retained all he had gotten more than six months' previously. Feet normal to the sight, the only manifestation of the old trouble was slight tenderness felt by hard pressure on two of the small joints. After making a practical failure of every case of this kind I ever treated before, I feel gratified in being able to report so favorably in this, and believe my success was almost entirely in stopping or lessening the formation of excessive uric acid in the system, and beginning with small and increasing doses of arsenic, continued for months, with the possible help of galvanism.

T. COATES.

RUSSELVILLE, PA.

MORPHINE HABITUÉS.

SIR:—Dr. Lett's letter in your journal to-day prompted me to say that among the hundreds of opium habitués who have been under my care, or concerning whom I have been consulted, the most remarkable was a physician's wife "thirty-four years old; always sickly; four years ago had severe illness, during which took morphine subcutan.; was ill three months; convalescing, could not quit the drug; continued in increasing quantity till, at end of two years, took 40 grs. per day, hypoderm, and one or two 5 gr. doses by mouth. After a time changed to entire taking by mouth, reaching 60 to 75 grains daily, and *all at one dose.* One year ago resumed syringe, reaching 40 to 50 grs. per diem, and had hard work to get along on that."

The special feature of this case is the large amount taken in one dose. Such patients are rare. So, too, are those with whom one taking per day will suffice. Twice, or oftener, is the rule. Exceptions to this are of interest, and—forensically—of importance. *Vide* paper by the writer, "Two Peculiar Cases of Morphine; a Medico-legal Study."

The amount taken by Dr. Page's patient—"two ⅛ ounce vials per week"—

has been exceeded by several patients under my care. During the last two years three women have been dismissed cured, each of whom took 30 grs. daily for several years. Two were sisters—ten years taker—and the other a seventeen years user. See paper, "The Curability of Narcotic Inebriety," reprint at command.

Dr. Page did not state the form of his patient's addiction—by skin or stomach. An important point this, for the effect by former is double that by mouth. Bartholow says triple, but a large experience has proved this over great. In changing from syringe to stomach we never have given more than twice as much. This, too, only when taking less than 10 grs. per day. If the daily taking exceeds ten, the same amount, by mouth, will suffice.

That Dr. Page's patient should "be up and about," is not all "startling;" nor that she is "a very neat woman." Neither condition is uncommon. My experience along the latter line has been more pleasant than that of Dr. Lett. Neatness in female patients has been the rule. The three women cited were not untidy, and another under care last year, who had taken laudanum twenty two years, reaching nearly a pint per day, was above reproach in this regard.

MATTISON,
Med. Direc. Brooklyn Home for Habitués.
BROOKLYN AVENUE, BROOKLYN.

TREATMENT OF ACUTE RHEUMATISM.

AS I have found in acute rheumatism that the urine was loaded with uric acid and acid urates, and the secretion of the skin generally being acid, I have always adopted the alkaline plan of treatment, or the plan in which alkalies play an important part.

When I find a patient having had chilly sensations, or a severe chill, with a temperature of 100° to 102° F.; the joints swollen and tender to the touch, possibly discolored from the inflammation; motion impaired by the swelling and pain; the tongue usually coated, and the bowels constipated; the secretion of urine diminished, and markedly acid, I generally prescribe:

℞.—Hydrargyri chloridi mitis..... gr. ij.
Sig. Every two hours until free evacuation of bowels occurs.

℞.—Sodii salicylatis..... gr. x.
Sig. Take every three hours until the pain is better.

The pain in a few hours, or at most in twelve to twenty-four hours, begins to subside; after which I often administer the following:

℞.—Potassii bicarbonatis..... ʒiij.
Aquæ destillat..... Oj.
Elexiris ..... fʒij.
M.—Sig. One tablespoonful every two hours.

After a few days I add quinine in doses of 2 grains every three hours, which plays an important part. The alkaline treatment I continue until the urine is secreted in nearly or quite normal quantity, and is only slightly acid in reaction, I then give a general tonic.

The joints I place in cotton batting until the swelling subsides, and the temperature of the joints becomes nearly or quite normal. The cotton prevents any change of temperature from external influences. I also enjoin absolute rest in bed from the first. The diet, until the acute symptoms have passed, consists of milk; after the acute symptoms have subsided, more solid food is added. Under this plan of treatment I have treated a great many cases, and have never had any organic lesion of the heart to follow.

As to acute rheumatism being a self-limited disease, I have fully made up my mind that it is not; as I have seen some very bad cases controlled in a few hours' time, and believe that to cut the attack very short you want to push your alkalies early.

F. W. FRANKHAUSER, M.D.
READING, PA.

RHEUMATISM.

LINIMENT for inflammatory rheumatism:

℞.—Aconiti tinct. U. S. P..... ʒiv.
Ext. hamamelis destillat..... ʒiij
Alcohol..... ʒij.
M.—Sig. Apply and cover with flannel.

℞.—Ferri phos..... gr. v.
Lithii brom..... ʒvj.
Aquæ dest..... ʒiv.
M.—Sig. Teaspoonful two to three hours in water.

℞.—Acidi salicylici,
Sodii bicarbonat.....āā ʒij.
M.—Chart No. xii.
Sig. One every two to three hours.

For chronic rheumatism:

℞.—Olei sassafras,
Olei spike,
Aq. ammonia.....āā ʒj.
M.—Sig. Apply and cover with flannel.

In some cases add cotton seed oil in similar quantity to the above.

For lumbago:

℞.—Potassii iodidi..... ℥ij.
Tinct. macrotrys (herb. virid)..... ℥ij.
Tinct. rhus tox. (herb. virid)..... gtt. x.
Ag. ol. menth. pip .....q. s. ad ℥iv.
M.—Sig. Teaspoonful every three hours; later, three times a day. Take mixed with water.

Keep the bowels regular with salines. These prescriptions are some of the many found to act well in these complaints. As to the coal tar derivatives, I seldom use them, and then only combined with a stimulant, and then I watch for heart complications. C. M. BRUCKER, M.D.

TELL CITY, IND.

Book Notice.

DARWIN AND AFTER DARWIN. An Exposition of the Darwinian Theory and a Discussion of Post-Darwinian Questions. By GEORGE JOHN ROMANES. I. The Darwinian Theory. Chicago: The Open Court Publishing Company, 1892. Cloth, 8vo., pp. 460. Price, $2.00.

Mr. Romanes is the incumbent of a lectureship founded by Lord Rosebery, in the University of Edinburgh, on "The Philosophy of Natural History." The present volume, and two to follow, contain the substance of the author's lectures given at this institution. In the volume before us, the second of the series, Mr. Romanes endeavors to present a systematic exposition of what he terms "The Darwinism of Darwin." The evolution theory is stated with a perspicuity that would have pleased its illustrious originator, showing that with the Darwinian tenets the author has adopted Darwin's clear, logical, and judicial method of dealing with it. In nearly every page our author has introduced new material that has accumulated since the "Origin of Species" first upheaved a volcano on the plains of thought. The flippant inquirer for "missing links," if he ever took the trouble to read it, would be certainly amazed to find how many of the gaps have been filled. The book is well gotten up, on good paper, and fully illustrated. The price is very small for a work of its merit, size and mechanical execution.

A MANUAL OF MEDICAL JURISPRUDENCE AND TOXICOLOGY. By HENRY C. CHAPMAN, M.D., etc. With 36 illustrations, some in colors. Philadelphia: W. B. Saunders, 1892. Cloth, 8vo., pp. 237. Price, $1.25.

This volume presents a digest of the author's lectures on the subjects mentioned at the Jefferson Medical College; especially treating of such topics as his experience as Coroner's Physician proved to be of most practical importance.

GONORRHŒA AND URETHRITIS. By J. FRANK LYDSTON. George S. Davis, Detroit. Paper, 25 cents.

A subject of practical importance, treated by a practical man.

Dr. Lewis picked up in some obscure corner a copy of an old Spanish work, entitled "Anatomia Completa del Hombre," by Martin Martinez, published in Madrid in 1775. It is bound in vellum, and illustrated with 22 cuts. One of them delineates a child whose heart protrudes from an opening in the sternum, the organ lying wholly outside of the thorax, and, if we may trust the artist, outside of the skin. The case is said to have been reported in 1706.

LA REVISTA MEDICO-QUIRURGICA AMERICANA. A monthly journal in Spanish, printed in New York City by J. Shepherd Clark Co., and edited by DRS. S. E. MILLIKEN and P. J. SALICRUP.

The original papers in the opening number are by L. A. Sayre, John A. Wyeth, and John E. Weeks, all of Nueva York City. Of the collaborators twenty are from New York City and fourteen from the provinces.

MEDICAL MATTERS MENTIONED IN JEST. By LELAH. 100 illustrations. Chicago: Era Publishing Company, 1892.

A little paper-bound 12mo. of 60 pages, of medical humor, sometimes at the patient's expense, oftener at the doctor's. Very amusing.

The Medical Digest.

TREATMENT OF CHOLERA.—At the Académie de Médecine M. Peter gave a succinct account of the 118 patients he had treated in the Hôpital Necker. The mortality was 40 per cent. all round, but where the dejections were riziform it was 95 per cent.; in other words, all treatment was powerless. All the cases came from the faubourgs, none from the center

of the city. The majority of the patients who died succumbed before the period of algidity from simple prostration, vomiting and dysentery ceasing several hours before. His treatment consisted in the administration of opium, the application of ice along the spine, and when collapse set in, vigorous frictions, injections of ether and caffeine, and above all mustard baths. Champagne and brandy were also freely given to sustain the strength.

M. Brouardel said that one of the characteristics of the present epidemic was to be found in the class of persons attacked, who were nearly all debilitated by poverty, disease, or drink. Out of ten drunkards nine died, whereas out of the same number of temperate persons only two succumbed.

M. Galliard said that he treated 150 patients by intravenous injections of artificial serum, according to the method of Hayem. The vein chosen was the internal saphenous, immediately above the malleolus. The composition of the liquid was as follows: chloride of sodium, 5 grm.; sulphate of soda, 10 grm.; distilled water, 1,000 grm. The dose of the solution, maintained at 101°, was two liters, or 2,000 grm., and the instrument used was the transfusor of Colin. The *raison d'être* of the operation was to restore to the blood the serum of which it had been deprived by the constant evacuations, and thereby to gain time for other treatment. The operation was especially useful where collapse had set in. Although in many cases the transfusion did not succeed, it never aggravated the position of the patient. Out of 147 patients thus operated *in extremis* 25 recovered. M. Galliard admitted that the latter figure was very low, yet he was convinced that even those few owed absolutely their salvation to the transfusion.

Mixture Against Cholera :—

℞—Hydrochloric acid	♏xxx.
Hydrochlorate of cocaine	gr. ij.
Laudanum	♏xxx.
Syrup of peppermint	℥j.
Water	℥vj.

A tablespoonful every two hours.

Under the influence of this treatment the vomiting and the diarrhœa cease rapidly.

At the Berlin Medical Society, Guttman gave his experience: It was self-evident that the treatment of cholera must be a stimulating one, internally by alcohol and spirituous wines, and subcutaneously by injections of camphor, ether, etc., external, warm bottles in bed, hot baths, etc. The speaker had also employed saline infusions. This treatment was quite rational, for the disappearance of the pulse was due to thickening of the blood. The subcutaneous injections could be made with very simple instruments, with syringes, for instance, containing 100 to 200 grammes of fluid. For hospital work, however, it was indispensable that some apparatus should be used by which the injection could be carried out more quickly. He showed an apparatus consisting of a bottle holding 3 liters, and a bellows that drove out the air, so that the fluid flowed out under greater or less pressure, as required. The fluid used was ⅔ per cent. boiled solution of common salt, which was kept at a blood heat. As point of puncture, the subclavicular region was selected. The skin was simply raised and the trocar or hollow needle inserted. When no assistance was at hand, the attendant himself could knead the skin, and in this way spread out the fluid into the surrounding tissues. If a large quantity of fluid had to be injected, two points might be made use of for puncture. It was necessary to inject at least a liter of fluid at one time. In one case he made injections six times in twenty hours, and injected 5.7 liters of fluid.

Dr. Guttman was followed by Dr. Pfeiffer with an address on the "Bacteriological Diagnosis of Cholera," with demonstrations. He showed that the microscope, in some cases, revealed at once to the experienced searcher the comma bacillus as the dejections were, at times, simple, pure cultivations of the cholera bacillus. In other cases, however, the diagnosis was not so easy, as the cholera bacilli might be hidden by the numerous other saprophytes that were present. In doubtful cases it was important to make cultivation experiments for the sake of diagnosis, a definite result could always be reached in twenty-four or, at most, thirty-six hours.

The Treatment of Cholera in Hamburg.—On the 30th ult., Hr. Rieder related before the Aerztliches Verein his experiences of the treatment of cholera in the Allgem. Krankenhaus. He said no results worth mention had been obtained by the subcutaneous injection of saline solutions. The intravenous injection of the same

solution gave at least, at first, very good results in about two-thirds of the cases, and, amongst others, some asphyxiated patients were still living. Other patients treated in the same way died very rapidly. One woman, on whom three intravenous injections had been made, was still living. In many cases the pulse became transiently better, in others it remained good after the first infusion. The latter looked as if they would recover. The patient bore two to four liter injection of fluid very well. The excretion of urine increased in nearly all cases after infusion, without the increase having the favorable significance attributed to it by many observers. On the whole, better results were observed in men than in women, as the disease ran a much quicker course altogether in women than in men.

In Austria much attention has been given to the analeptics and antiseptics. These may be comforting agents for the medical epicure, but the more philosophic will be anxious to know what he has to treat, and how those engaged in the heat of the battle have struggled with the fiend. The classic record of Cantani made during the epidemic in Naples, 1884, seems to meet with general favor among those engaged in the Russian hospitals. Cantani divided the cases into those where death ensued from a thickened state of the blood, consequent on the loss of water by the stools, which he considered present in a large number of the sudden collapsed cases. He freely admits the presence of the opposite condition, or cholera fulminant, where no water is lost, and death more rapid. The latter he attributes to the intoxication of the comma bacillus agency, and changes produced in the mucous membrane of the alimentary canal. His treatment resolves itself into:

1. Limit the increase of the bacilli in the gastric canal.

2. Neutralize the toxic products already accumulated in the alimentary tract.

3. Rapidly eliminate the already absorbed toxine from the hæmatic circulation.

4. Relieve the more or less thickened condition of the blood present in all cholera intoxication.

The latter indication is the one more peculiar to Cantani. Hot enteroclysis of tannic acid are good as far as they go in checking the abnormal flow from the mucous membrane, but when taken alone he considers it a danger, and therefore prescribes hypodermic injections of warm water in the algidic condition, which he affirms arises from the thickened blood, and if not early relieved with warm water, or better, warm water and chloride of sodium, fatal results will speedily ensue.

The water must first be sterilized, and not contain more than 7 per 1,000 of common salt.

Since that time Cantani's logic has been accepted as the most practicable solution of the difficulty. Reports from the different Russian schools are not unanimous in this treatment after many trials. It is generally admitted that good results have been seen, but others deny that any benefit has been perceptible.

The prevailing form of treatment seems to be the good old dose of calomel; some in large quantities, others in small doses, but frequently varying from half an hour to an hour's interval; a gramme is frequently given as a dose at the beginning of the attack. Internal antiseptics are also given, but the most common are those that are least rejected, such as the bismuth preparations, salicylate, subnitrate, etc., with salol and creolin. Iodoform has been given, but the vomiting does not favor the result. The hypodermic injections with a 1 per cent. tannic acid clyster has been largely used, with questionable results.

The treatment during the analepsis is also various, but not so conflicting as during the morbid stage. Injections or the internal use of camphor moschus with wine, etc., are the greatest number. To maintain warmth and free circulation of the blood, warm baths, cutaneous friction, warm compresses, "frottering" the skin, etc., have all been largely used. Mustard plaster, rubbing with different strong spirits, etc., are applied for the cramp.

It is worthy of note that opium in any form is very rarely used.

Observations tend to confirm theory that it interferes unfavorably with the speedy elimination of the toxine, and whatever benefit it might be to the checking of the flux its effects have a tendency to cause absorption.

Ice, hot coffee, tea, and fluid diet comprise the general form of practice in Russia.

CHOLERA TREATMENT.—Dr. Gaillard's (of Havre) method is as follows: When

the patient is already in the algid stage his body is vigorously rubbed, repeated hypodermic injections of caffeine and ether are given, and also inhalations of oxygen. If no benefit accrues, then two liters (for an adult) of a saline solution, consisting of sterilized distilled water, 1,000 grammes; chloride of sodium, 5 grammes; sulphate of sodium, 10 grammes, are injected into the internal sapherous vein. Sometimes the transfusion needs to be repeated, but not till the lapse of eleven hours. When the patient can swallow, administer a liter of sweetened water containing 15 grammes of lactic acid. Follow this with champagne, coffee and nutrient enemata.

—*The Lancet.*

Salol in Cholera.—For cholera, Mitropolsky recommends internal administration of salol in 5-grain doses every hour. Also give a mixture consisting of 20 drops of tincture of opium *Ph. Russ.*, 1 ounce of dilute hydrochloric acid, and 6 ounces of marsh-mallow root, the dose being one tablespoonful every hour. An interval of half an hour should elapse between the mixture and the salol.

Atropine in Cholera.—Koroltchuck states that the most characteristic symptoms of cholera closely resemble those induced by muscarine, or ptomaines, or toxics of the muscular group, and suggests that, as atropine is a powerful antidote in muscorine poisoning, that the algid stage of cholera be treated by hypodermic injections of the drug. On the other hand, Manassein doubts its efficiency, and argues that, at any rate, it must be cautiously used, because, after the subsidence of algid manifestations, and after the return of the patient's circulation and absorption to the standard point, toxic symptoms may develop.

Quinine in Cholera.—Niedzwiecki recommends subcutaneous injections of quinine. The formula is:

℞.—Quinini bihydrochlorici..... grams xxx.
Aq. destil. ebullientis...q.s. ad 100 grams.
Sodii chloridii..... grams 0.vi.

M.—S. Two (Lewin) syringefuls (= 1.2 gr. of the bihydrochlorate) to be injected on the first day; later on, from 1 to 2 syringefuls daily.

After the cessation of vomiting, a combination of the quinine salt with salicylate of bismuth and opium should be given internally. Of adjuvants, morphine should be used subcutaneously when abdominal pains are present. Enemata of tannic acid should also be given, while in the algid stage, hypodermic injections of a physiological saline solution should be used.

It has been pointed out that Botkin, during the epidemic in St. Petersburg in 1871, treated cholera with the following mixture:

℞.—Liq anodyni (Hoffman's),
Tinct. quinæ compositæ, *Ph. Russ.* āā ℥j.
Quininæ hydrochlorici..... ℈j.
Acidi hydrochlorici diluti..... ℈jss.
Olei menthæ piperitæ..... gtt. x.
Tinct. opii simpl., *Ph. Russ*..... ℥ij.

M.—S. From 20 to 30 drops to be given every two hours.

Tinct. quinæ comp. vel. elixir roborans Whyttii, *Ph. Russ.*, is prepared of 3 parts of grey cinchona bark, 1 gentian root, 1 flavedo corticis aurantii, 16 of a 90 per cent. spirit of wine, and 8 cinnamon water. Tinct. opii simpl., *Ph. Russ.*, contains 1 in 10 of opium.

Oxygen and Hot Baths in Cholera.—Trivus speaks of good results from inhalation of oxygen in the vomiting of cholera as well as in the algid stage. Also, that hot baths (30° Réaum.) are excellent on cramps and vomiting. In algid cases the bath water should not reach above the patient's navel.

CHRONIC CONSUMPTION LATE IN LIFE.—In conclusion, I may give you, before demonstrating the cases to you, a short summary of the various points I have touched on.

1. The disease, while relatively less frequent than in early adult life, is still not uncommonly met with.

2. It more commonly attacks males than females.

3. The influence of heredity, although less marked, can still be traced in some of the cases.

4. The disease is essentially chronic in form.

5. It is in a considerable number of cases limited to one lung.

6. Tubercular disease of the larynx and intestines is found in as great a proportion of the fatal cases as in earlier life.

7. The onset is usually insidious.

8. Cough with emaciation and debility should always suggest the possibility of phthisis in an elderly person.

9. Hæmoptysis is less frequent, except in the later stages, when there is considerable risk of profuse and possibly fatal hemorrhage.

10. The symptoms of disease are sometimes quite misleading, being abdominal in type, suggestive of malignant disease, and generally arising from intestinal or peritoneal tubercle.

11. Sometimes the physical signs are best marked at the apex posteriorly.

12. Sometimes the disease is complicated with chronic bronchitis and emphysema, which mask the physical signs, and then is easily overlooked, unless the sputum is examined for bacilli.

13. The duration of the disease is essentially protracted, but difficult to determine clinically on account of the gradual onset of the illness.

14. The maintenance of strength and nutrition, and the quietness of the pulse are most encouraging as regards prognosis, while the opposite and the occurrence of complications are of grave omen. —H. W. G. Mackenzie, in *Med. Press and Circ.*

GONORRHŒAL SEPTICÆMIA.—Dr. Rugy describes a fatal case of this not uncommon complication of gonorrhœa. This happened in a case occurring in his practice, and he ascribes it as due to the fact that the patient was somewhat advanced in years (sixty-two); that it was his first attack of gonorrhœa, and that his constitution was weakened by long years of alcoholic excess. He complained of an urethral discharge, which had existed for three days. On examination there was a plentiful sanguineous purulent discharge. Alum was resorted to, and Condy's injection and an alkaline solution. Three days later he had some pain in the left side, greater pain in the right knee, shoulder and wrist, which last was much swollen. There was considerable effusion into the right knee; the left ankle red and swollen; the soles of the feet painful when touched. Conjunctivæ and sclerotic of both eyes were injected. Temperature 100° F. Iodide of potassium and opium were prescribed. At the expiration of four more days the pain in the joints had abated, but they were swollen so that he could not move them. Temperature at noon of the last day was 101.5°; pulse 120, feeble. At 10 P. M.: Temperature 107°. He died an hour later.

The hyperpyrexia in this case appears to point strongly to the septicæmic origin of the complaint, probably from the rupture of some small vein in the urethra, through which absorption took place. The hyperpyrexia occurred within a few hours of death. Previously the temperature had varied from 100° to 101.5°.

May not a considerable number of cases of hyperpyrexia ordinarily attributed to rheumatism possibly have their origin in gonorrhœa? Is it a mere coincidence that so called gonorrhœal synovitis and hyperpyrexia of rheumatism is greatly more common in the male than in the female sex? If the case of my patient should be held to point to a septicæmic origin, would it not be well to discard the terms "gonorrhœal rheumatism," "synovitis," or "arthritis" in favor of "gonorrhœal septicæmia?" It would clear the ground for a rational treatment, for if we cannot by any known drug kill the micrococci when they have once obtained access to the system, yet we can avoid doing harm by giving salicylates, etc. If given at the first onset of joint pain quinine in fairly large doses, combined with sufficient opium to control the pain, would appear to offer the best chance of success.

—*The Lancet.*

IMMUNITY AGAINST TYPHOID.—Bruschettini, in his experiments to obtain cultures affording immunity against typhoid, tried the effect of cultures in rabbit's blood, and found that the liquid portions, when injected under the skin, did not cause death, but a prolonged rise of temperature and progressive wasting. Injections into the peritoneum caused death in from three to five days, preceded by a rise of temperature and wasting. Injections into the blood of 3 to 5 c. c. of similar cultures also caused death with the same symptoms in rabbits after about four days. He found it possible to obtain immunity to the disease with the aid of these cultures, heated for an hour at 60° C., and also with old gelatine and broth cultures; that to obtain such a result, it is necessary to employ about 20 c. c. of heated blood culture, or 50 c. c. of old broth or gelatine cultures, given subcutaneously; that the serum of such immunized animals has great bactericidal powers in relation to the typhoid bacillus, much greater than that of the normal rabbit; finally, the serum of such immunized rabbits possesses marked antitoxic actions against the typhoid bacillus.

ACONITE POISONING.—Robinson reports the case of a soldier who, after a debauch, took about 2 drachms of tincture of aconite. One hour later he was recumbent, tossing his limbs about and complaining of cramps in the arms and hands; his radial pulse was imperceptible, carotid 119, respirations 10, pupils slightly dilated but sensitive, nose pinched, extremities cold, face bedewed with cold sweat; at times he lapsed into unconsciousness. Between $\frac{1}{10}$ and $\frac{1}{5}$ grain of apomorphine, hypodermically, produced vomiting, and the stomach was thoroughly washed out. At intervals during four hours—by which time he was out of danger—he was given hypodermic injections, amounting in all to 25 minims of tincture of digitalis, 45 minims of aromatic spirits of ammonia, and 2 drachms of brandy.

He considers digitalis as superior to atropine or strychnine as an antidote to aconite, but that stimulants must also be used to gain time for the digitalis to act.

REFLEX SPASM OF THE GLOTTIS FOLLOWING DISTENSION OF THE STOMACH.—In India a soldier, who had been for a few days without meat, gorged himself with tough, uncooked meat in pieces varying from four to seven inches in length. He then drank much water, and sang for about an hour, when he was affected with occasional pain in the larynx and with cough. Gradually dyspnœa succeeded, which prevented his sleeping. Promptly taken to the hospital, examination showed nothing visible beyond distension of the stomach. The obstruction to breathing seemed to be in the larynx. His speech was whispering, and altered in quality. He complained of pain over the hepatic area. Hot fomentations to the larynx and occasional inhalations of chloroform were administered, but their effect was transitory. The spasm prevented him from swallowing an emetic. Blisters were then applied along the course of the vagi, and cupping over his stomach repeatedly performed. In about half an hour the result was well marked, the spasms stopping for a time. Finally an emetic was taken, and about a pound and a half of meat vomited. His symptoms hence improved, though for three days he had a spasmodic laryngeal cough. For want of an instrument no laryngeal examination could be made. The day after the meal hepatitis appeared, but was easily cured. As soon as the laryngeal symptoms abated the patient could swallow freely, so that direct pressure on the larynx by a mass of meat in the œsophagus was out of the question; while the marked effect of the counter-irritation of the vagus seemed to point to the symptoms being due to reflex irritation from the stomach.—*The Lancet.*

GLYCOSURIA WITH LOW SPECIFIC GRAVITY OF THE URINE.—Dr. Nicholson urges the absolute necessity of careful examination of the urine, even with normal specific gravity. In the case of a lady of sixty-five years, whose history was that of occasional afflictions from pruritus, eczema, etc., who complained of what she called "piles"—burning and itching of anus, dragging pains across lumbar region, and depression of spirits, he says, that as her father and brother were gouty, his treatment was conditioned thereby. Her appetite was fair, but the bowels would not act without aperients; polyuria not marked; heart, lungs, etc., normal; pulse 72, regular, good tension. The urine had specific gravity of 1,022; was pale, limpid, and slightly acid. As he found, on rough examination, that she was passing about four grains of sugar in the ounce of urine, he placed the patient on strict diabetic diet; stychnine, euonymin pill at night, with mineral water in the morning. In about three weeks every trace of sugar disappeared, and the specific gravity went down to 1,010. At the end of four more weeks the strict diet was relaxed, though still sugar and limited starch were prohibited.

TREATMENT OF FILARIA SANGUINIS HOMINIS.—Dr. Manson believes that the filaria stands to chyluria in about the same relation as rheumatic fever stands to heart disease and gonorrhœa to urethral stricture; it starts the disease process, but its continual presence is not necessary for keeping it up. To attempt a cure by the administration of a parasiticide is as useless as to attempt to cure established heart-disease by salicylates or stricture of the urethra by astringent injections. In a case under his observation, he argues that, although the parent filaria was necessary for the production of the lesion in the thoracic duct, its constant presence there was not required for the maintenance of the lesion. He cannot see the benefit

of killing either the embyro or the parent filaria, or how an anthelmintic, even supposing it were effective as such, can possibly cure chyluria. A knowledge of the pathology of chyluria, elephantiasis, etc., makes it evident that our endeavors should be directed to keeping the parasite alive and in a healthy condition. There is much evidence to show that under normal conditions the filaria is innocuous, and that it is only when abnormally located, or when, from some cause, the contents of its uterus are prematurely evacuated, or when it dies, that this parasite becomes a danger to its human host. He argues that the cause of the obstruction of the lymphatic circulation, which produces elephantiasis, is the embolism of the after-cut vessels of the lymphatic glands by prematurely expelled ova from an aborting female filaria, and that therefore it becomes impossible for the filaria embryos to enter the circulation. From this he concludes that while it is a rare thing to find filaria in the blood, yet to them is due the production of elephantiasis. The proper treatment of chyluria should be rest, elevation, lowering of the tension in the lymphatic vessels by the use of saline purgatives, limited and suitable food, very limited use of fluids.—*The Lancet.*

IPECACUANHA IN DYSENTERY.—Dr. Arthur H. Hart reports the case of a woman admitted into the French hospital at Suez. Her condition was as follows: State of great prostration. Temperature 38°; abdominal tympanites and tenderness; hepatic fullness and intense sensitiveness, dysuria and diarrhœa. The stools of the usual slimy dysenteric character. Twenty minims of tincture of opium were administered in a little water at once, followed in half an hour by ½ a drachm of ipecacuanha powder. Turpentine stupes were applied to the abdomen and the opium enema of the P. B. given. Some hours later ½ a gramme of quinine was given in a cachet. The treatment acted so promptly in stopping diarrhœa and easing pain that at night 15 minims of laudanum, followed by 1 gramme of ipecacuanha, was again given, with another opium enema. The first day she was only allowed hot milk to drink. She had four stools in the twenty-four hours, the temperature being 38.6° C. The ipecacuanha caused a good deal of vomiting. The following powder was prescribed: Two grains of salicylate of bismuth, 1 grain of sulphate of quinine, 1 grain of naphthol, ⅓ of a grain of opium powder. This powder was divided into four cachets, one being taken every three hours. The opium enemata and turpentine stupes were continued. Milk and soda-water or barley-water was all the diet permitted. Next day the patient was comfortable; temperature 38° C.; bowels moved three times in twenty-four hours. No abdominal pain. Allowed milk, bread and bouillon. Medicine to be repeated. Two days later the temperature was 37.8° C., the patient passing natural stools. Gets up during the day and takes more solid food. Ordered a gramme of quinine and carbonate of ammonia instead of the bismuth preparation. Two days more and a slight return of the diarrhœa stopped by 10 grains of Dover's powder.

The great difficulty we have to deal with in dysentery is exalted peristalsis. Ipecacuanha meets the difficulty by acting as an intestinal muscular sedative. A large dose stops tenesmus quite suddenly, and smaller subsequent doses prevent its return. The mucous membrane becomes in a suitable condition for the second action of ipecacuanha to come into play—namely, secretory stimulation. We have now to deal with an enteritis, and here ipecacuanha acts in the same way as in bronchitis. In a certain proportion of cases where ipecacuanha fails it is because it is given too late. In those cases where it fails when success ought to have come, the fault may be attributed to the lack of strict attention as to the diet. Beef tea, bread, or any light foods are fatal to the successful administration of ipecacuanha. —*The Lancet.*

MYXŒDEMA.—Two cases are reported by Brown Séquard and d'Arsouval, in which every prestige of the disease had vanished after ten days' treatment by injections of a liquid obtain from the thyroid gland. They also announce that animals deprived of their supra-renal capsules nearly regain their normal condition through injections of a liquid extract obtained from the supra-renal capsules.

Following are the conclusions reached:

1. Liquid extracts of all the viscera, of the glands and other portions of the organism, may be injected under the skin even in considerable quantity with perfect safety.

2. Experimental facts in accordance with clinical facts show the curative power of subcutaneous injections of extract of the thyroid, in cases of Graves' disease depending on the absence of action of the thyroid gland, and give considerable support to a therapeutic method proposed by us a long time since.

3. We have every reason to believe, after the experiments which we have reported, that death, in diseases of the suprarenal capsules, may be retarded, if not absolutely prevented, by injections of liquid extract of these glands taken from an animal in good health.

Dr. Wallace Beatty, of Dublin, published a case about six months ago of myxœdema in a woman of forty-five years, cured by massage and injections of a preparation of the thyroid body of the sheep. In this case there was extreme lassitude, difficulty in speech, feeble memory, sensation of cold, etc., with absence of the gland. After treatment the œdema disappeared, speech, became natural, could walk without fatigue, memory returned, and menstruation, which had disappeared, was re-established; in fact, the case was looked upon as one of cure.—*Med. Abstract.*

TREATMENT OF APPARENT DEATH IN DROWNING.—M. Laborde recently stated before the Académie de Médecine that two persons apparently dead from drowning were resuscitated by drawing the tongue strongly out of the mouth and repeating the action many times; there is immediately produced a sort of spasmodic inspiration and a flood of liquid is thrown out by vomiting repeated and abundant. In one of the cases the ordinary methods of artificial respiration had been used in vain for about an hour. The efficacy of the excitation of the base of the tongue, and especially of its traction, is due to the awakening of the respiratory reflex. The traction should be rhythmic and imitate after a fashion the function which it seeks to set in motion. It being objected that this method necessitated the persistence of reflexes, M. Laborde stated that the persistence of the reflexes was a *sine qua non* for the return to life, as well with his proceeding as for that of Marshall Hall and of Sylvester.

YAWNING AS A THERAPEUTIC MEASURE (Dr. O. Naegeli).—In certain affections of the throat, such as acute pharyngitis and catarrh of the Eustachian tube, with pain in the ear and deafness, excellent results may be obtained by making the patients take many times a day, a series of successive yawns. There is an almost instant improvement in the symptoms, especially of the pain. The movement of the muscles in the act of gaping, acts as a sort of massage.

HYDRASTIS CANADENSIS IN THE TREATMENT OF THE VOMITING OF PREGNANCY.—In four successive cases of persistent vomiting, a Russian gynæcologist, Dr. P. Fedorow, has obtained rapid and complete success by the administration of the fluid extract of hydrastis canadensis, in doses of 20 drops, repeated four times a day. The drug acts, according to the author, by lowering the blood pressure, by relieving the uterine congestion, and by calming hyper-excitability of the vaso-motor centers of the gastro-intestinal tube.

PARALYSIS AGITANS.—Charcot has developed a new method of treatment. He noted the curious fact that patients showed marked improvement while making long journeys by rail, or in a carriage. The greater the speed or the jolting the more evident was the improvement. He accordingly had a vibrating chair constructed, and found the same benefit derived from fifteen-minute sittings in it. This was true not only of paralysis agitans, but of neurasthenic cases in general.

Gilles de la Tourette has applied the principle to the treatment of hemicrania and nervous headache, by means of a vibrating helmet, surmounted by an electric motor, giving six hundred vibrations a minute.—*Med. Abstract.*

SUBCUTANEOUS INJECTIONS OF DIGITALIS.—According to a Russian doctor, Zienetz, good results may be obtained in cardiac affections with troubles of compensation, by small doses of digitalis given hypodermically, where the drug given by the mouth has an insufficient action. He makes an infusion of one part of the leaves to thirty parts of boiling water, of which he gives the contents of a Pravaz syringe two or three times a day.

TREATMENT OF PROFESSIONAL SPASMS.—Dr. Benedict, of Vienna, has discovered that certain functional spasms, accompa-

nied by clearly localized pains, yield to hypodermic injections of a solution of phenic acid, made at the painful points. In this manner he cured a piano player, and a young man who had suffered from writer's cramp for five years.

TREATMENT OF ZONA.—Brocq employs the following:

℞.—Boric acid..... gr. xv.
Oxide zinc,
Powd. starch.....āā gr. xxx.
Albolene..... ʒiss.
Lanolin..... ʒii¼.

By means of a needle previously passed through the flame, open carefully all the vesicles of the zona; then wash the parts with boric water containing a little alcohol; cover with the above paste; powder with starch and spread over the whole a thick wad of tow. If the pain is too great add muriate of morphine or cocaine to the above formula.

PILLS FOR THE PAINS OF POST-PARTEM UTERINE COLIC (Rutherford.)—

℞.—Quinine sulph..... gr. xv.
Powd. opium..... gr. viij.
Extract of trifolium..... q. s.

For 15 pills. One pill every two or three hours until the cessation of the pains.

News and Miscellany.

FIFTEEN Chicago dairymen have been indicted by the Board of Health for selling milk from cows fed on garbage.

OF fifty doctors who volunteered to go to Hamburg during the cholera season hardly any escaped an attack of that disease.

DR. CHARLES F. MCGAHAN, of Chattanooga, Tennessee, has removed to Aiken, South Carolina, where he will occupy the residence and office of the late Dr. William H. Geddings.

DR. COLCLOUGH is convinced that under ordinary conditions, small-pox is not infectious until the second or third day of the eruption; that early recognition and prompt isolation are the important steps to take, and that all persons exposed to infection should be at once re-vaccinated if two years have elapsed since the last successful vaccination.

THE hat question is decided by a contemporary in favor of its utility and benefits, provided the two points of lightness of pressure on the head and the admission of air through apertures are attained.

IN the hemorrhagic form of small-pox, the eruption may not be forthcoming, and if nothing is known of the patient's history or of his exposure to infection, it is not always easy to detect at first sight.

ONE of the medical journals of Philadelphia is pounding away, in labored editorials, at the question of a revision of our code of ethics. This journal, under its present management, concedes that the code needs revision. A few years since such a statement from a New York doctor nearly caused a convulsion among editors in Philadelphia.

Dear neighbor, codes need not trouble you. What Pennsylvania needs is a good law creating a board of medical examiners. Improve the quality of physicians. Make them all pass an honest State examination, homœopaths and regulars alike, and codes will be unnecessary. A little more knowledge, and a little less, not of ethics, but of talk about ethics, is what the profession of this country needs.

—*The Post-Graduate.*

SOME time ago I had occasion to refer in these columns to the case of Dr. Collins, an ex-military surgeon-major, well known in this country and in Canada, and who, up till last spring, possessed one of the largest and most fashionable practices among ladies in London.

According to his own written confession, he had forged the endorsement of his friend, Captain Selwyn, the step-son of Col. Hughes-Hallett, to a promissory note.

It may be remembered that Captain Selwyn, after taking the advice of his friends, Lord Walsingham and the Prince of Wales' equerry, Sir Nigel Kingscote, determined not to prosecute the doctor on the condition that he left the country within six months. As he failed to do this he was arrested on a charge of forgery.

The jury acquitted the doctor notwithstanding his confession, and I now understand that he has once more resumed his practice in Mayfair, just as if nothing had happened.—*News-Record.*

THE annual meeting of the Board of Directors of the Chicago Charity Hospital, 2407 Dearborn street, was held October 13. The Secretary's report showed that something over three thousand men, women and children had been treated within the last year. Several new members were added to their staff of physicians, and the general needs and demands of the institution were discussed.

This hospital is unique in its way, being the only exclusively free hospital in Chicago. No pay patients are taken under any consideration. Nor will it entertain any patient who is able to obtain treatment elsewhere. Any indigent person, without regard to nationality, age or sex, receives treatment, food and shelter without cost. There are no salaried officers or physicians connected with the institution. Its clinique includes gynecology, surgery, nose and throat, eye and ear, nervous and general medical—all except contagious diseases. Each department is presided over by a specialist, who gives his time, gratis, one day in each week, or oftener if necessary.

Prominent among these physicians are Drs. H. T. Byford, Joseph T. Bacon, F. H. Martin, D. A. K. Steele, John T. Binkley, Dudlie C. Trott, F. B. Robinson, Silas T. Yount, T. M. Hardie, Rosa Engleman, and Robert Dodds.

The demand for such an institution was brought before a number of prominent ladies by several physicians about three years ago. With quick womanly sympathy these ladies called a meeting at the Palmer House, to see what could be done to relieve the suffering of the many worthy poor who come under the observations of physicians every day. At this meeting were Mesdames Thomas Burrows, Cyrus H. McCormick, Jr., Clifford Payson, Volney C. Turner, H. M. Wilmarth, J. M. Flower, and F. H. Martin.

Enough money was subscribed to start the work, and Mrs. Wilmarth was chosen President, with Mrs. Martin as Secretary. Rooms were secured at 31 Washington street. These soon became inadequate, and a meeting was called to see what should be done. It was decided to give an entertainment, and use the proceeds toward buying a building. Accordingly "Cinderella" was given at the Auditorium under the management of Mr. Walter Carr. This entertainment netted $4,000, which applied as part payment on the present building and its appurtenances.

The organization, the promoters say, is much in need of funds at the present time, there being a debt of $7,000 on the building at present.

A visit through the wards showed the white beds nearly all filled. Flowers bloomed in the windows, and a general air of cheerfulness was everywhere present. Many critical operations have been performed, and in all cases patients receive the same care they would if they were paying large sums for treatment. There are many middle aged women among the patients, plainly very poor, but they seem very grateful for the kindness shown them.

Last summer the hospital was swindled out of quite a sum of money by a bogus collector. To guard against future impostors it was decided that all contributions should be sent to Mrs. F. H. Martin, Treasurer, 3210 Lake Park avenue.

—*News-Record.*

ABSTRACT OF PROCEEDINGS OF MICHIGAN STATE BOARD OF HEALTH, LANSING, OCTOBER 11, 1892.—The following named members were present: Arthur Hazlewood, M.D., Grand Rapids; Mason W. Gray, M.D., Pontiac; Prof. Delos Fall, M.D., Albion; Hon. Frank Wells, President *pro tem.*, Lansing, and Henry B. Baker, M.D., Secretary, Lansing.

The Secretary presented his report of work done in the office during the last quarter. A large part of it was in the direction of efforts for the prevention of the introduction of cholera. On account of the possibility of the introduction of cholera, there was a large number of telegraphic and written communications which were out of the ordinary line of work, and needed prompt attention. The three pamphlets on the "Restriction and Prevention of Consumption, Scarlet Fever, and Diphtheria," were revised and reprinted. There was an unusual call for the pamphlet on cholera; one city asked for five thousand copies. Not so many were sent, but a large number were distributed. The pamphlet on the "Restriction of Cholera" was revised, but is not yet reprinted.

Samples of proposed International Health Tickets were presented from the Secretary of the American Public Health Association, who was a committee of the International Conference of State Boards of Health. It is proposed to have these tickets adopted throughout the continent.

The tickets to be issued to immigrants by the inspector at the place of debarkation, and to be carried until taken up by the local inspector at the immigrant's final destination. By a note, in different languages, the immigrant is made to understand that it is to his advantage to keep the ticket in his possession. These tickets are to convey, by parts punched out at starting place and by inspectors along the line, valuable information to all the inspectors, who are to possess the key; such facts as name of possessor of ticket; date of issue; whether or not from an infected locality; the name of the disease with which the immigrant is possibly infected or exposed; where and how long detained; how the person, clothing on the person, and baggage had been disinfected, and other facts which might save detention, disinfection, etc., or lead to careful surveilance for the time of probable danger. The Secretary had suggested amendments, and it is hoped that this ticket system may soon be perfected. Those in use at present do not convey the necessary information, and by the Michigan State Inspectors very little reliance is placed on them.

Secretary Baker remarked that the cholera having ceased in New York, and the newspapers having much less to say of cholera, the public seem to have concluded that the danger of the introduction of cholera has ceased. A few health officials seem to have the same view. Holding the view that the danger of the introduction of cholera has not lessened, except that the numbers of immigrants are less, and desiring to know the views of prominent and neighboring sanitary officials, the Secretary had addressed a circular letter to them. Another point on which he desired to learn their views, was the question of the relative danger of the introduction of cholera by immigrants coming from ports not known to be infected, compared with immigrants coming in a ship on which cholera had occurred, from a port known to be infected, such a vessel for instance, as the "Normandia," which was detained so long in the port of New York, and whose passengers had been so dealt with as to make it probable that they would not convey cholera; his own view being that the danger was greatest from baggage which may find its way from some of the many cholera infected centers to an uninfected port, from which it would come to this country, and, because from an uninfected port, pass quarantine without detention or disinfection. In response to his questions, letters were received from Dr. J. T. Reeve, Secretary Wisconsin State Board; Dr. J. F. Kennedy, Secretary Iowa State Board; Dr. F. H. DeVaux, Secretary North Dakota Board; Dr. J. N. McCormick, of Kentucky, President of the International Conference State Boards of Health, and also Dr. Walter Wyman, Supervising Surgeon-General U. S. Marine Hospital Service, who says: "Your views concerning the great danger of the introduction of cholera through the medium of baggage of immigrants arriving from some port believed to be uninfected, and upon a vessel without any history of infection, are entirely in accord with my own, which I expressed in a letter to the Secretary of the Treasury as early as July 7." Telegrams were received from Dr. Lachapelle, President Provincial Board of Health, Quebec; Dr. C. N. Hewitt, Secretary Minnesota State Board, and Dr. F. W. Reilly, Secretary Illinois State Board.

Dr. Reilly said: "Without endorsing the principle of a detention quarantine of a fixed number of days under ordinary circumstances, the Illinois State Board approves the action of the Michigan State Board of Health in enforcing a twenty days' quarantine on immigrants from European ports seeking entry into the United States through the Dominion of Canada. This action is approved because it is believed immigrants are shipped through Canada for the purpose of evading the United States twenty days' quarantine. In the judgment of the Illinois Board, the United States quarantine is defensible, on the ground that its effect, if not evaded, would be practically to prohibit immigration until danger of cholera importation had passed."

Besides the communications from State officers already mentioned, other letters were received. U. O. B. Wingate, M.D., Health Commissioner of Milwaukee, in his reply, said: "I certainly do not think that we should relinquish any vigilance in this matter during the winter, and that, as you say, there is a great deal more danger of having the germs introduced into this country from unexpected sources, than from vessels that we know are infected. * * * I do not think the Northwest should rely entirely on the quaran-

tine at our seaports, knowing as we do how imperfect disinfection is at certain stations, but that a double quarantine and disinfection should be established in the country to protect this part, for we are peculiarly situated in regard to exposure, being subjected to the enormous number of immigrants that are locating in and passing through the Northwest. I believe, with you, that this is not a matter confined to the World's Fair alone, but it is a matter which affects the whole prosperity of this part of the country."

John D. Ware, M.D., Health Commissioner of Chicago, in his reply, said: "I think as you do in relation to immigration to this country by the way of the St. Lawrence and points in Canada. I believe that your order relative to quarantine is a most excellent one, and so far as this department is concerned, I wish that it was carried out with all ports of entry. * * * I am also greatly in favor of the methods of inspection and disinfection, no matter what the cost may be, of the maintenance of such quarantines and inspection; the money could not be more profitably spent, and the probable good results from such a course would be beyond all computation. As you say, many seem to think that with the cessation of cholera in the port of New York, danger no longer exists from the introduction of cholera. I believe that there is danger, even at present, not only from those immigrants and the baggage of such immigrants as may be known to have been infected, or those immigrants who may have come from infected ships, but those who have not been on infected ships, who may by some chance have come in contact with the germs."

The general tenor of the letters and telegrams is, that the danger of cholera is not yet passed; that it will probably be greater next summer; that a danger to be especially guarded against is by baggage in some way infected, brought in by immigrants not sick, in uninfected vessels, and from uninfected ports, therefore being allowed to pass quarantine at the seaboard without disinfection; that until seaboard quarantines are more perfect, and the system of tickets of sanitary information more satisfactory, it seems important to have a line of inspection and of *disinfection* from Sault Ste. Marie, southward, to Lake Erie, and preferably as far south as Kentucky.

The subject was thoroughly discussed. The following resolution was adopted:

Resolved, That the quarantine orders and Rules of the Michigan State Board of Health heretofore issued, including the published requirements formulated by the Executive Committee of the Board, be continued, and that they be extended so as to apply to all immigrants entering Michigan; and that the Executive Committee be continued, with power to act.

It takes time to organize an efficient system of inspection and disinfection; unexpected difficulties are to be met and overcome. One surprise to the State Board of Health was the opposition to its published rules by the Detroit Board of Health. However, it seems now that the inspection and disinfection are proceeding quite satisfactorily; the United States inspectors are working in harmony with the State Board's rules, the Customs Officers coöperate, the railroad companies supply the steam for disinfection, and their officers and employés give substantial aid. The spirit of the railroad companies is well shown by a letter from the District Passenger Agent, C. Sheehy, of the Canadian Pacific Railway Co., at Detroit, as follows: "This company is perfectly satisfied with the arrangements that were made here for the passing of immigrants. We have carried out as best we could, all the recommendations and suggestions made by yourself and the Hon. Mr. Wells, when you were in Detroit and Windsor. If there is any thing that we can do or have done to aid or assist your Board in carrying out your rules and regulations, we will make every effort in our power to comply with your wishes and instructions."

Before adjourning, the Board appointed a committee to memorialize the President of the United States for a more effective health organization for the United States.

THE THAMES WATER PATHOGENETICALLY CONSIDERED.—Sir George Buchanan, before the Royal Commission on Metropolitan Water Supply, of London, stated there was no evidence derivable from tests of the quality of the drinking water, whether organisms hurtful to the human species did or did not exist in water after filtration. No available test could be trusted to prove that the water was not responsible for typhoid fever outbreaks; that, though poisonous organic matter might be present or absent, the pathogenical qualities of the water were not distinguishable. He could investigate organisms present microscopically, or have

albuminoid ammonia, nitrates, etc., determined chemically, but that the water contained impurities injurious to health, such examination would fail to show. Nor could any analysis of any sample of water give him light as to the hurtfulness of the organisms. No determination could now state whether the water was or was not free from hurtful elements, nor could innocuous bacteria be distinguished at present from morbid elements.

Regarding water purposely polluted, it was certain it had been rendered dangerous, but the chemists could not tell what the danger was. He knew not what number of microbes were visible by the microscope after repeated filtration had been made, or after the micrographic element had been carried down by use of Clark's softening process to such water. Dupré had indicated that the change in the amount of oxygen present in the dissolved air of a water kept under observation might establish whether growing microphytes were present or not, and by observing the extent of the change, the amount and activity of microphytic impurity might be judged. Investigations of the life-history of bacteria in water were important, to determine what were their relative hostilities, to what extent one kind, whether by changes in the oxygenation of the water, or by destroying weaker, pathogenic, or opposite kinds, ultimately aided in purifying the water. As to testing water purposely polluted, Dr. Cory had shown that, if we could be sure that it was derived solely from healthy bodies, we might run no serious risk, though it were as foul as that of the Holy Well ("Zemzem") at the Caaba in Mecca —stuff which was saline with urine, and yielding to analysis six times as much animal matter as is found in the same volume of London sewage. There is no reason to believe that the quantity of disease-producing material in the (Thames) water is proportionate to the amount of total organic, or total animal matter.

—*Brit. Med. Journal.*

GROUND FOR DOUBT. — Timorous Stranger—"Is this really Chicago?"

Resident—"Yes, sir."

Visitor—"I won't believe it. I've been here now goin' on three hours, and the $15 I left home with is in my pocket still."

—*News-Record.*

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I WOULD also allude to cases of diarrhœa and vomiting, and of indigestion dependent on nervous disturbances during the later months of pregnancy. I had two cases during the past summer, both were rapidly declining in strength; they failed to be benefited by remedies suggested by other physicians, as well as myself, until they were placed on KUMYSS, when the improvement was rapid and permanent. Very truly yours,
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HE—"My income is small, and perhaps it is cruel of me to take you from your father's roof."

She—"I don't live on the roof."

—*Once a Week.*

SIR RICHARD ———, being called to a patient who fancied himself very ill, told him ingenuously what he thought, and declined prescribing, thinking it unnecessary. "Now you are here," said the patient, "I shall be obliged to you, Sir Richard, if you will tell me how I must live—what I may eat, and what not." "My directions as to that point," said Sir Richard, who abominated this sort of question, "will be few and simple; you must not eat the poker, shovel, or tongs, for they are hard of digestion; nor the bellows, because they are windy; but anything else you please."

The English journal that prints this as a witty anecdote does not say whether the patient kicked the doctor out for his impudence.

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